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KIRSTENBOSCH:

NATIVE PLANTS

At the National Botanic Gardens

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FOREWORD.

The photographs in this album were taken by Mr. A. Elliott of Cape Town, and some of them have already been reproduced in *South African Gardening and Country Life*. It is thought that their collection in this form may be acceptable to the growing number of those South Africans who love Kirstenbosch and the native flora of their own land.

R. H. COMPTON.

1922.

. . . .
Which May had peynted with his softe shoures
This gardin ful of leves and of floures;
And craft of mannes hand so curiously
Arrayed hadde this gardin, trewely,
That never was ther gardin of swich prys,
But-if it were the verray paradys.
Th'odour of floures and the fresshe sighte
Wolde han maad any herte for to lighte
That ever was born, but-if to gret siknesse,
Or to gret sorwe helde it in distresse;
So ful it was of beautee with plesaunce.
. . . .

(Chaucer: Frankeleyn's Tale 179-189).

IN THE FERN DELL.

The photograph shows the rock-work at the head of the Fern Dell at Kirstenbosch, where the stream that rises in the ancient little Bath falls in a charming cascade. The stone balustrade around the Bath as well as the ferns and Cape Ilex trees can be seen in the sunlight in the background. Behind the cascade is a cave which makes a suitable home for certain filmy ferns and liverworts.

On the left *Alchemilla capensis* trails over the rocks, and above this can be seen the edge of a group of the graceful fern *Hypolepis anthriscifolia.* On the right is a mass of *Crassula centauroides*, a water-side or bog plant of much beauty with abundant pink starry flowers. To the right and a little higher is *Lycopodium gnidioides*, one of the few South African club-mosses. The plant with radiating foliage is a Cyperus: a blue-flowered Commelina forms long trailers below, and the projecting bush is *Erica curviflora*, one of the bog heaths.

Special attention may be directed to the "natural" character of the rock-work, both here and throughout the Dell. The stone used in this part is from the compact reddish basal strata of the Table Mountain Sandstone. No better example in gardening could be given of the true art that conceals art: and anyone who plans to lay out a water garden should come to Kirstenbosch for ideas.

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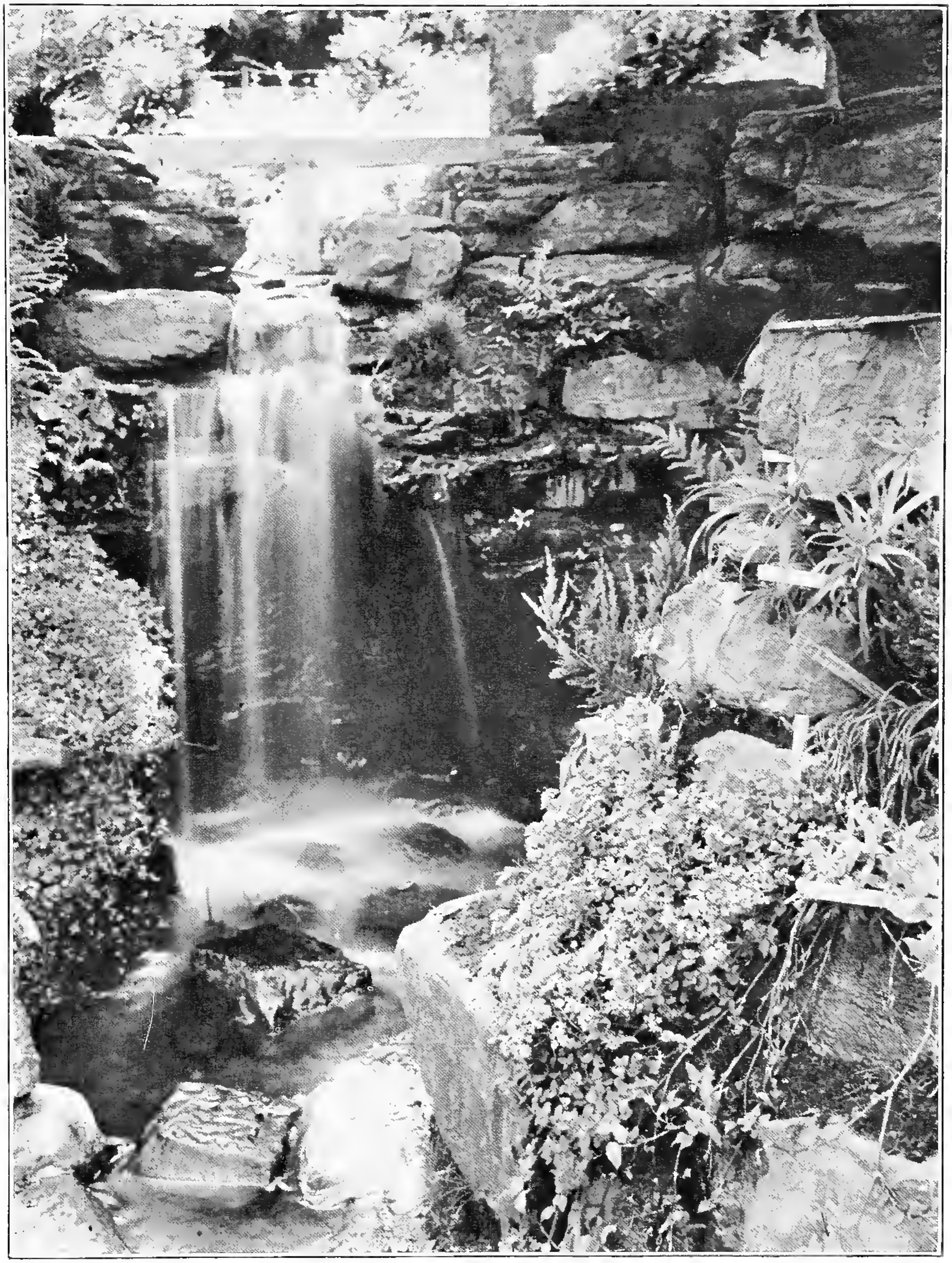


In the Fern Dell.

SILVER TREES.

The Silver Tree is the chief glory of Kirstenbosch. Apart from the Faureas it is the only South African member of the Protea family which attains the stature of a tree. Its botanical name, *Leucadendron argenteum* doubly emphasises its most remarkable characteristic, the glistening silver of its leaves. No sight is more beautiful than a Silver Tree with sun and wind striking it on the same side, when every leaf lifts and "flashes hues of flourished steel." A few stately sisters stand at the foot of the crags above Skeleton Ravine, but it is on the slopes of the granite ridge that forms the watershed between the Diep and Liesbeek Rivers that the Silver Trees grow in the greatest luxuriance. Rarely living to more than 40 years of age they regenerate copiously from seed, and tend to grow in dense formation (as at Hohenort) when they are protected from the competition of alien pines and wattles. They are native on the red soils in the Cape Peninsula and in a few other localities in the mountains from Paarl to Somerset West, and they are difficult to cultivate elsewhere.

The photograph also shows in the foreground some of the Cape Almond (*Brabeium stellatifolium*) bushes which formed part of van Riebeek's hedge, planted in 1660. One catches a glimpse of the Great Lawn, and then behind lie the forest-clad lower slopes and the towering precipices of Table Mountain, the Saddle and the Devil's Peak.

Silver Trees and the Devil's Peak.

STRELITZIA REGINAE, ANCHUSA RIPARIA, ERLANGEA ROGERSI.

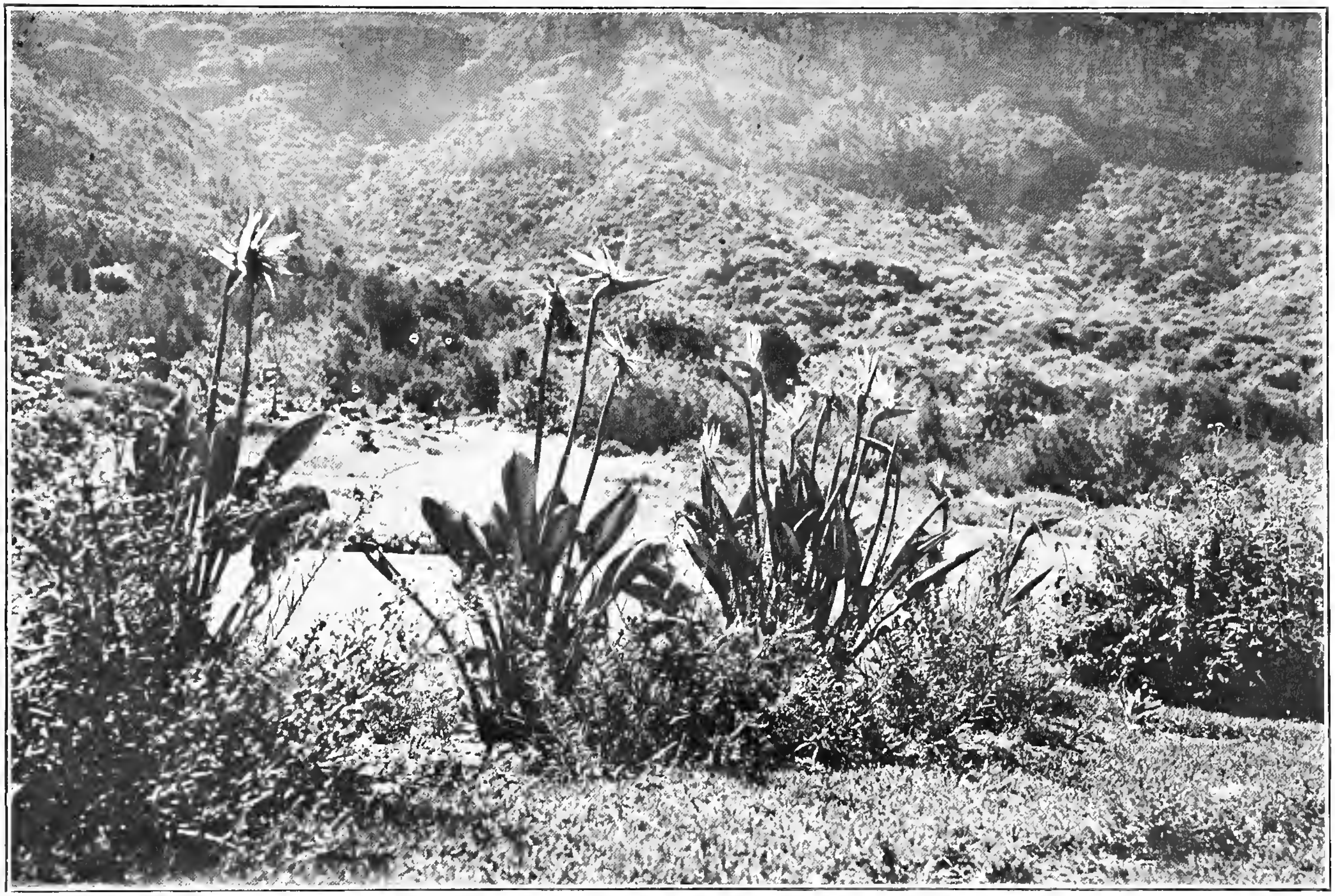
The photograph shows part of two of the beds in the grass bordering the Terrace at Kirstenbosch, which are usually treated in a formal way in distinction to the natural grouping adopted in the other parts of the Gardens. Behind lie the forest-clad slopes of Table Mountain.

Strelitzia reginae, the bird-of-paradise flower, is one of the most astonishing of our indigenous plants, the extraordinary form and bizarre colouring of the blue and orange inflorescence rendering it one of the most prized curiosities of the plant world. Other species of this genus (which belongs to the banana family, or Musaceae) also occur in South Africa, including the stately *S. augusta* from the Natal coast (to be seen on the lawn at Kirstenbosch), but none is more striking than *S. reginae*, which occurs in many of the coastal and eastern divisions of the Cape Province.

Anchusa riparia, the Cape forget-me-not, which belongs to the Borage family, is a widely distributed plant in South Africa and is noteworthy for the intense blue of its flowers. The best bedding variety comes from the Darling district, being rather more compact and free-flowering than the one shown. The plant is a biennial and should be sown in August for planting out in March and April, and for flowering from the following August to January.

On the right is a bush of *Erlangea Rogersi* from the Transvaal, which may perhaps be described as a shrubby Ageratum. It is easy of cultivation and flowers over a long period. Propagation can be performed readily by seeds or cuttings.

All these plants thrive in a good free loam if supplied with a fair amount of water during the flowering season.



Strelitzia reginae, Anchusa riparia, Erlangea Rogersi.

THE KIRSTENBOSCH CYCADS

Two genera of Cycads occur in South Africa; *Stangeria* with three species, having an underground stem and fern-like leaves; and *Encephalartos*, the Kaffir Bread Trees, with about 15 species. The photograph shows four species of this latter genus, (of which Kirstenbosch possesses in all about eleven). In the centre are two large specimens of *E. latifrons*, now extremely rare and occurring only in the Albany and Bathurst districts: the tree behind is considered to be the oldest specimen of this species in existence. In the lower right-hand corner is *E. Ghellincki* which occurs commonly in the Drakensberg. In the left margin is *E. Lehmanni* from the coastal forest belt north of East London. In the background are several fine specimens of *E. Altensteini*, which also occurs in the coastal forest from East London to Natal, and is the only species at all frequently planted.

Apart from their high decorative value the Cycads are of intense scientific interest as representing a sort of missing link between the Ferns and the Flowering Plants, and as (apart from Ginkgo) the most primitive seed-bearing plants living at the present day. Close relatives of the Cycads are found petrified in strata laid down countless thousands of years ago.

These strange survivals from a dim past—or " living fossils " as they have been called—are planted at Kirstenbosch on the slopes of the Cycad Amphitheatre which rises around the Bath: the collection is a unique one and is one of the chief botanical features of the Gardens.

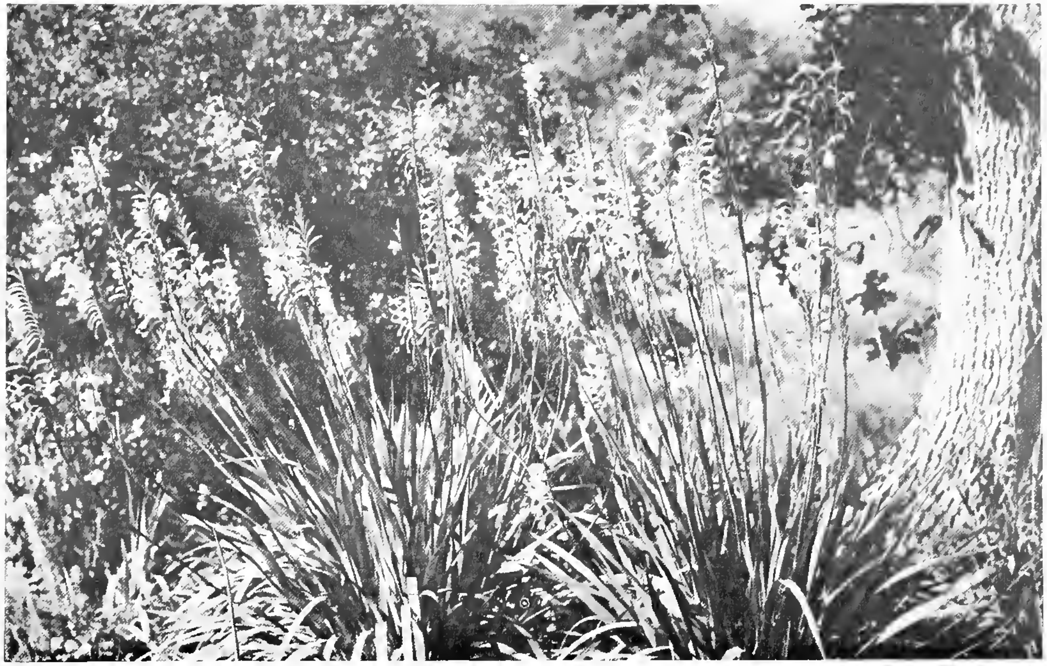
Stately Blooms.—Agapanthus in flower at Kirstenbosch Botanical Gardens.

[*Photo M. J. Kenny.*

The Kirstenbosch Cycads.

WATSONIA SP.

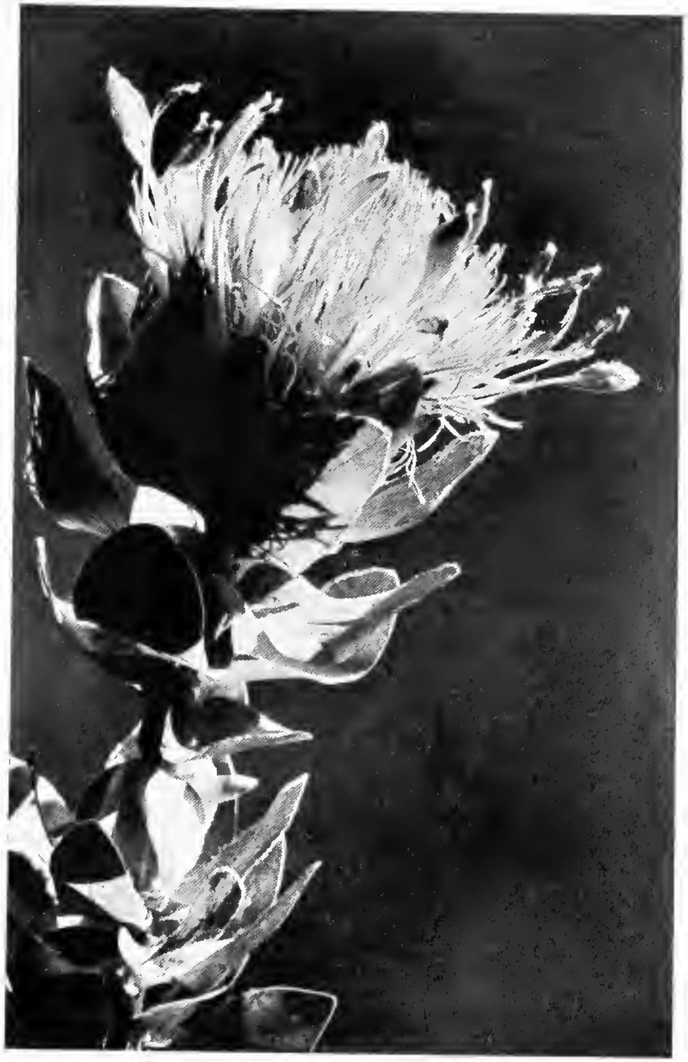
The only Watsonia that is at all extensively cultivated in South Africa and elsewhere is the white variety of *W. rosea*, frequently known as *W. Ardernei.* This has achieved a great popularity both in gardens and as a florists' flower, owing to the ease of its culture and the purity of its colour. But there are a great number of other native species which have not attracted the attention they deserve—perhaps, the cynic might say, because they are South African. A considerable collection of these has been built up at Kirstenbosch, and is being constantly added to and studied from the scientific and horticultural standpoints. Our illustration shows one of these, an unnamed species with affinities with *W. Galpini* in growth and foliage, and with *W. Pillansi* in the flowers. No plant could be more showy; and at the same time the tall inflorescences have the grace which one associates with a wild plant, and which is so often lacking in the cultivated monstrosities beloved by the " lay-on-the-colour-never-mind-the-form " school of gardening. A surprising range of novel tints occurs in the Watsonias—orange, salmon, rose, crimson—but all slightly " different " and characteristic. Some one species or other is in flower almost the whole year through. There is a great future for these stately plants, which if they came from China or Peru would long since have won the affections of all South Africans!



Watsonia sp.

PROTEA LATIFOLIA.

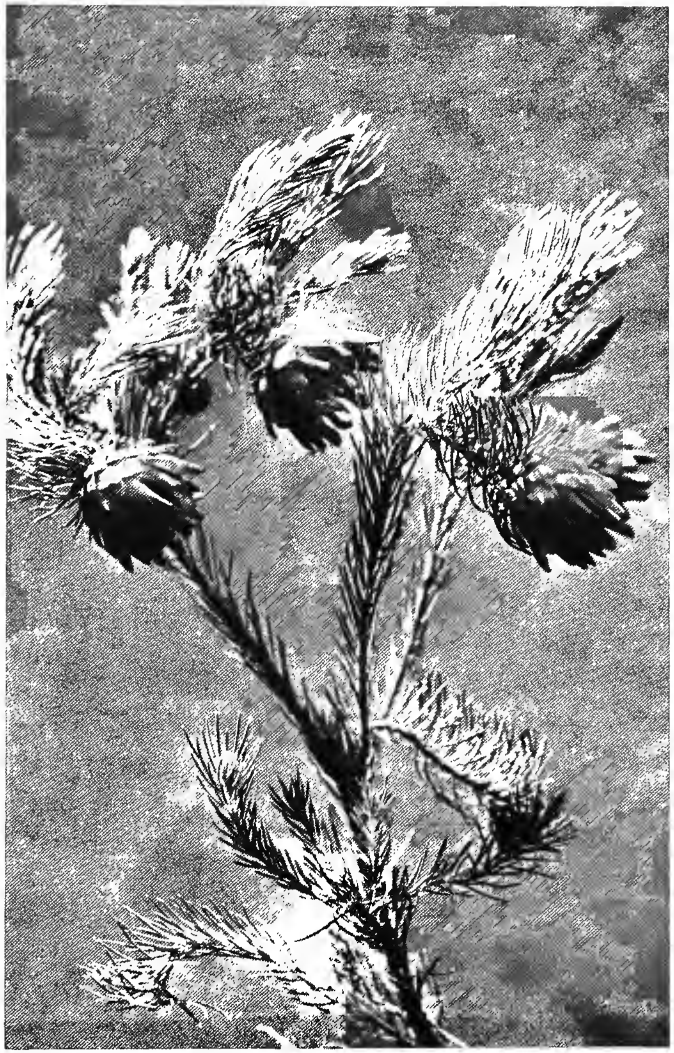
Protea latifolia is an erect, thick-stemmed, sparsely branched bush growing to about eight feet high. The flower-head is widely open, six or seven inches in diameter, and is carried erect on the end of a strong leafy shoot. The involucral bracts are very long and narrow and are somewhat spoon-shaped, being broadened at the tips; their general colour is deep pink or carmine. The flower heads are borne in profusion in the winter months, but a few are to be found on the plant at almost any time of year. There are two varieties of this species; one, with smaller and very glaucous foliage and pale coloured flowers, is generally distributed on the Table Mountain Sandstone strata of the mountain ranges of the South-West Cape; while the other, with deeper coloured flowers and foliage, would appear to be confined to the Montagu Pass and George. The latter has much larger leaves which are almost without the glaucous bloom of the former; its general appearance and large striking flower-heads would make it a good "accent" plant in large gardens. The Kirstenbosch plants are thriving in a well-drained sandy red loam, in full sun, and subject to fairly strong winds.



Protea latifolia.

PROTEA ROSACEA.

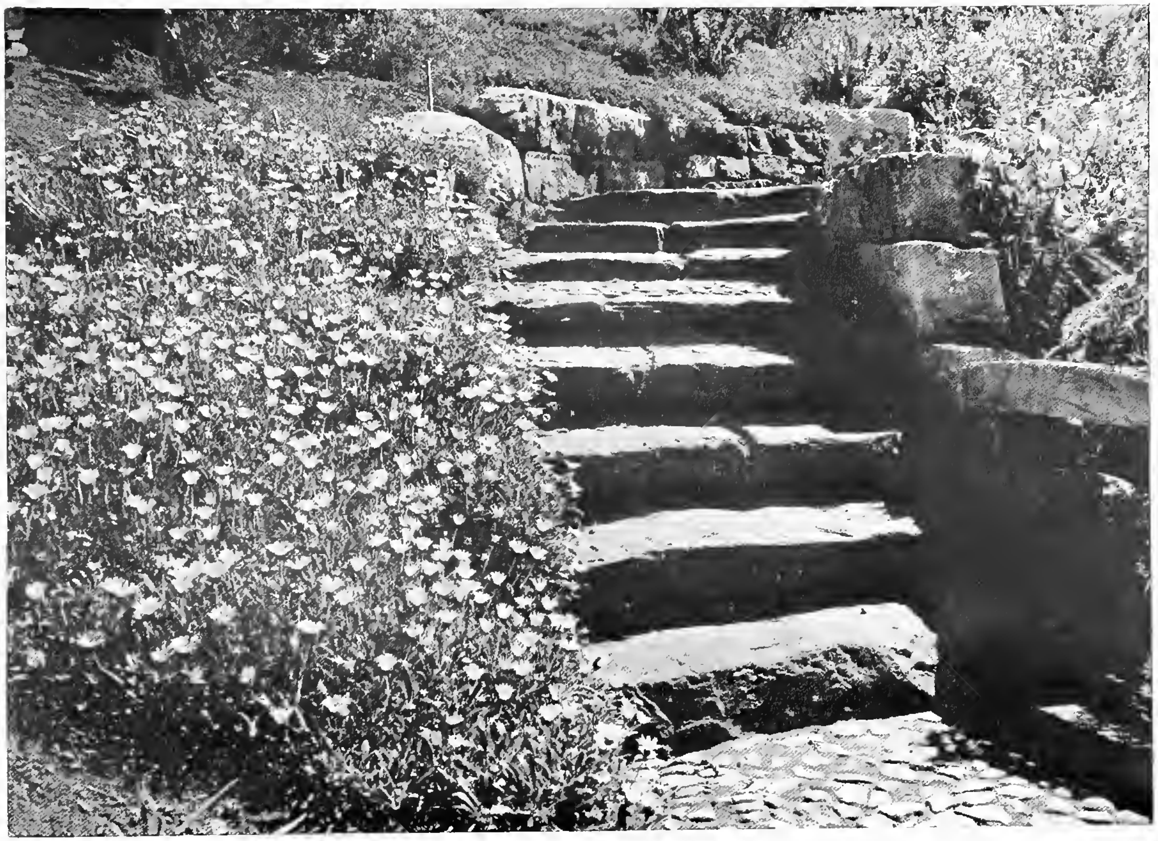
Protea rosacea, the Mountain Rose or Schaamblom, is a native of the lofty sandstone mountains of the South-West Cape Province, and is specially protected by ordinance against plucking and damage in the Divisions of Ceres, Paarl, Stellenbosch, Tulbagh and Worcester: besides being one of the plants prohibited from sale within or export from the whole Province. At Kirstenbosch it has proved most satisfactory in cultivation. It has done equally well whether raised from seed in tins or sown in situ, and it flowers abundantly in the third and succeeding years. Totally distinct in character from the bolder sugarbushes as *Protea latifolia* and *P. mellifera*, it well deserves its Dutch familiar name: the exquisite beauty of the hanging heads being only seen on raising the branches or on holding the flowers up to the light of the sky. The bushes are two to three feet in diameter, which would appear to be about their maximum size: their dwarf globular outline would suggest their usefulness as specimens on a small lawn, where the crimson tinted foliage and flower-heads would contrast with the lawn grass. The evergreen foliage is of the " needle " type, and the flower-bearing tips turn downwards away from the light. The involucral bracts are numerous and are imbricated in several rows, their colour being a rich translucent crimson. A pale greenish variety also exists, being found wild in various localities along with the typical red variety. The Kirstenbosch plants are succeeding in a well-drained red sandy loam with a North East aspect.



Protea rosacea.

GAZANIA UNIFLORA.

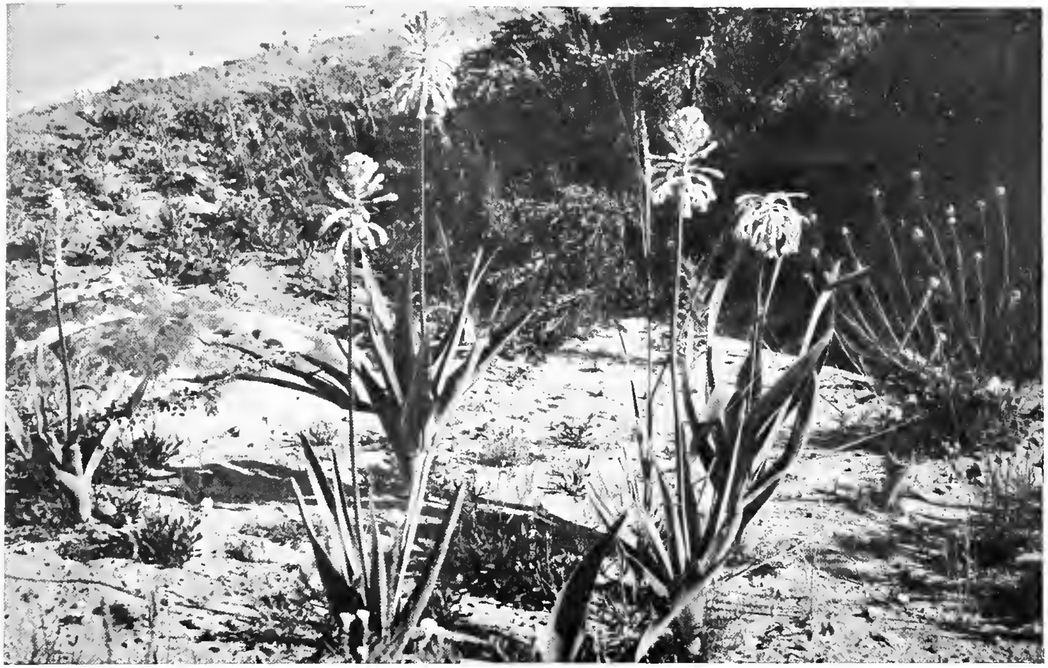
The accompanying photograph is taken on the left-hand side of the ancient Dutch Bath at Kirstenbosch, and shows the sandstone steps leading up behind the Bath to the Cycad and Protea Gardens. The mass on the left of the steps is a free flowering form of *Gazania uniflora*. The flowers are a clear yellow and are carried well above the foliage, which is dark green above and white beneath, and being evergreen is always effective. It is most suitable for clothing a steep bank of rich soil by reason of its free and spreading growth. It is too strong a grower under reasonable conditions for edging, but would form a good carpet to other plants, or as a mass on a dry-wall facing south or east, as it is partial to shade. It is easily raised from seeds or cuttings. The species is one of a small section of the genus, based on its spreading habit, and has several varieties differing mainly in their leaves. At one time a near species was largely in use for edging in European gardens.



Gazania uniflora.

PSEUDOGALTONIA PECHUELI.

This is a striking and distinctive plant of the family Liliaceae, its closest relationship being perhaps with Galtonia (of which genus G. *candicans*, from Natal, is frequently grown in gardens). It has an immense fibrous bulb, broad grey-green leaves sheathing at the base, and an inflorescence of about 100 flowers borne at the top of a scape 2-3 feet high. The individual flowers are pendent when open, the tube being gracefully curved and the perianth segments spreading: their colour is greenish white. It is native in the South West African Protectorate, and was introduced by Dr. Pearson in 1914 to Kirstenbosch where it has thriven and flowered regularly. Seeds were distributed to members of the Botanical Society last year.



Pseudogaltonia Pechuell.

ALOES.

Aloe is one of the most noteworthy genera of the Lily family, and is chiefly developed in South Africa, where about 90 species are native, some of which can be found in almost every district of the Union. These vary from the great Tree Aloe (*A. Bainesi*) of Kaffraria and Natal to the tiny grass-like *A. chortolirioides* of the Kaap, and include some of the most stately and distinctive plants in existence. The leaves show a great variety of form and are frequently adorned with markings and spines, and the flowers are borne in showy racemes or panicles of scarlet, yellow, brown or green. Most of the species flower in the winter.

At Kirstenbosch about 60 of the South African species can be seen on the Aloe Kopje, the beautiful natural rock-garden which lies between the Fern Dell and the Nursery Stream, together with numerous other members of the Liliaceae. The species shown in the photograph are: (1) *A. arborescens*—in the foreground—from Mossel Bay, which is one of the most effective species, the brilliant red spikes of flowers being produced in profusion in June: (2) *A. dichotoma*—in the background—the kokerboom, from the South West African Protectorate: (3) *A. plicatilis*—a single specimen on the right—from Tulbagh, with its curious strap-shaped spineless leaves in two ranks instead of the usual spiral arrangement. The low bush in the front is one of the Ericaceae, *Blaeria ericoides.*

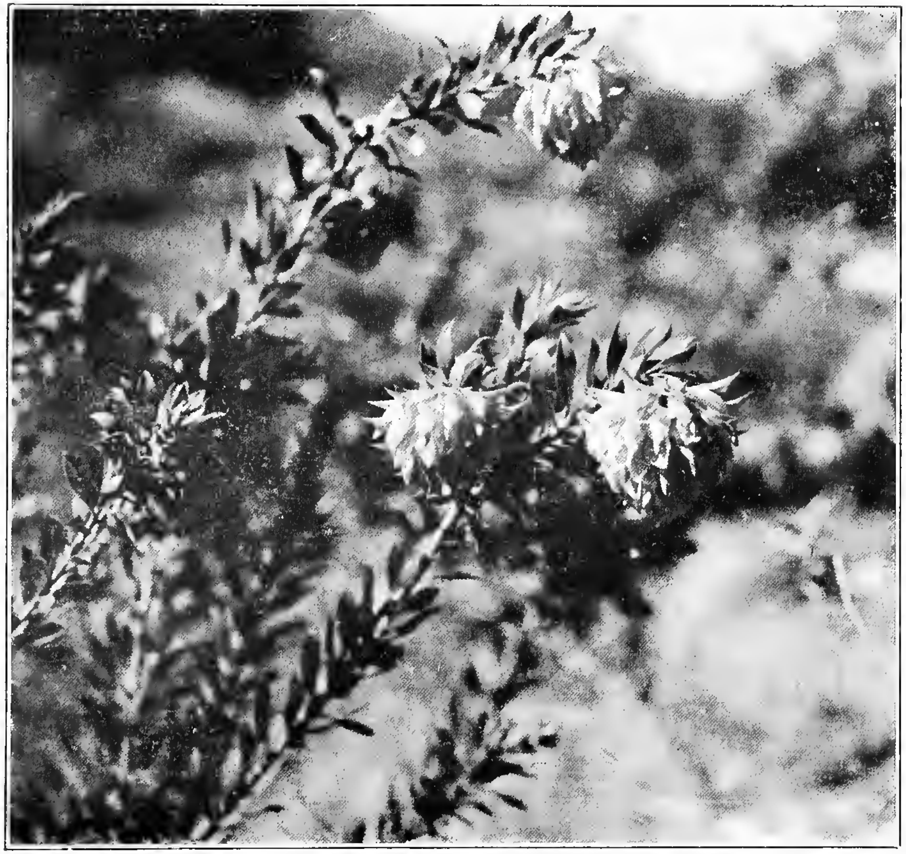
A word may be said about the Aloe Kopje itself. With scarcely an exception the lichen-stained sandstone boulders remain in the position in which they were found, with admirable effect, and the Aloes are grouped and spaced naturally among them. The whole effect is suggestive of the great sunlit stretches of the hinterland. Attention should also be called to the cobbled paths, a feature of Kirstenbosch, which are cleverly concealed among the boulders. Behind lie the misty kranzes of Window Buttress and Fernwood Peak.

Aloes.

LIPARIA SPHAERICA.

This is one of the most striking and unusual of our native plants. A member of the Leguminosae or Pea-flower family, the massing of the individual flowers in drooping heads strongly suggests Proteaceous affinities to many people. The common names are Mountain Dahlia, Orange Nodding-Head or Geelkop. The flowers are bright yellow, and are interspersed with bracts of a rich orange colour: the circumference of a good infloresence is as much as twelve inches. In cultivation *Liparia sphaerica* thrives well in a free well-drained loam, and when established it is best without artificial watering. A little shade is beneficial, enlarging the heads and clearing the colour. It has a troublesome knack of dying off, so that a small colony is necessary to ensure against loss. It sets seed freely, and the seeds germinate well if sown in March or April in the South Western Cape. The blooms should not be handled or bruised, as they blacken easily under rough treatment.

Liparia sphaerica occurs sparingly in various parts of Table Mountain and elsewhere in the Cape Peninsula, and is protected against gathering and sale.



Liparia sphaerica.

LISTROSTACHYS ARCUATA.

The climate of the Western Province, with its dry summers, is not in general adapted for the growth of epiphytic vegetation. Though there are many mosses, liverworts, lichens and one fern (*Polypodium lanceolatum*) which inhabit the trunks and branches of trees, there is no flowering plant with a similar habitat in the Cape Peninsula. At Kirstenbosch, however, where one or two inches of rain can be expected every month during the summer, and where assistance can be given with a syringe, it has been found possible to establish and flower several " tree-orchids " on the branches of the big Cape Ilex trees which overshadow the Dutch Bath. The photograph shows one of these, *Listrostachys arcuata*, clinging by its roots to a branch and bearing several sprays of the creamy-white flowers with their graceful reflexed petals. This curious and charming plant is native in the Eastern Province of the Cape (Uitenhage and Port Elizabeth) and extends through Natal to the Barberton Division of the Transvaal.

Listrostachys arcuata.